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Notice of Allowability

Application No.

09/854,040

Examiner

Matthew B. Smithers

Applicant(s)

GULICK, DALE E.

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment April 13, 2005.
2. ☒ The allowed claim(s) is/are 1,2,4,6-10,13,15-17,21-24, 26 and 31-40.
3. ☒ The drawings filed on 11 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

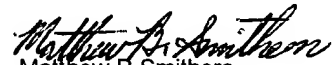
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Matthew B. Smithers
Primary Examiner
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DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mark Sincell on June 23, 2005.

The application has been amended as follows:

IN THE CLAIMS:

1. (Previously Presented) A system, comprising:

a memory configured to store data; and

a device coupled to the memory, wherein the device includes a random number generator, wherein the random number generator includes:

an entropy register configured to receive bits over a plurality of data lines, wherein each of the plurality of data lines couples an individual entry in the entropy register with an entry in a corresponding one of a plurality of performance registers.
2. (Original) The system of claim 1, wherein the random number generator further

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includes: an entropy control unit configured to provide a value from the entropy register in response to a request for a random number.

3. (Canceled)

4. (Previously Presented) The system of claim 1, wherein the corresponding entry in the one of the plurality of performance registers corresponds to the least significant bit entry in each of the plurality of performance registers.

5. (Canceled)

6. (Original) The system of claim 1, wherein the device includes a processor.

7. (Original) The system of claim 1, further comprising: a bridge coupled between the memory and the device.

8. (Original) The system of claim 1, wherein the device is configured to cause data to be stored in the memory.

9. (Previously Presented) A device, comprising:

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a random number generator coupled to receive signals from a plurality of bit lines,
wherein the random number generator includes:

an entropy register configured to receive bits over the plurality of data lines,
wherein each of the plurality of data lines couples an individual entry in the entropy
register with an entry in a corresponding one of a plurality of performance registers.

10. (Original) The device of claim 9, wherein the random number generator further
includes: an entropy control unit configured to provide a value from the entropy register
in response to a request for a random number.

11-12. (Canceled)

13. (Currently Amended) The device of claim 9, wherein the corresponding entry in
the one of the plurality of performance registers corresponds to the least significant bit
entry in each of the plurality of performance registers.

14. (Canceled)

15. (Original) The device of claim 9, wherein the device includes a processor.

16. (Previously Presented) A random number generator, comprising:

a plurality of data lines, each data line being coupled to a corresponding one of a plurality of performance registers; and

an entropy register configured to receive bits from the plurality of performance registers

over the plurality of data lines.

17. (Original) The random number generator of claim 16, further comprising:
an entropy control unit configured to provide a value from the entropy register in response to a request for a random number.

18-20. (Canceled)

21. (Previously Presented) The random number generator of claim 16 wherein the corresponding entry in the one of the plurality of performance registers corresponds to the least significant bit entry in each of the plurality of performance registers.

22. (Previously Presented) A method of generating a random number, the method comprising:
providing a first plurality of bit entries in an entropy register; and
transmitting a bit value from each of a plurality of performance registers to one of the first plurality of bit entries in the entropy register.

23. (Original) The method of claim 22, further comprising: providing the bit values from each of the first plurality of bit entries in the entropy register.

24. (Original) The method of claim 23, further comprising:

receiving a request for a random number;

wherein providing the bit values from each of the first plurality of bit entries in the entropy register comprises providing the bit values from each of the first plurality of bit entries in the entropy register in response to receiving the request for the random number.

25. (Canceled)

26. (Original) The method of claim 24, further comprising:

prior to providing the bit values from each of the first plurality of bit entries in the entropy register, providing a control signal to the entropy register; and

reading the bit values from each of the first plurality of bit entries in the entropy register.

27-30. (Canceled)

31. (Previously Presented) A method for generating a random number, the method comprising:

step for providing a first plurality of bit entries; and
step for transmitting a bit value from each of a plurality of performance registers to one of the first plurality of bit entries.

32. (Original) The method of claim 31, further comprising: step for providing the bit values from each of the first plurality of bit entries.

33. (Original) The method of claim 32, further comprising:
step for receiving a request for a random number; wherein the step for providing the bit values from each of the first plurality of bit entries comprises step for providing the bit values from each of the first plurality of bit entries in response to the step for receiving the request for the random number.

34. (Original) The method of claim 33, wherein the step for receiving the request for the random number includes step for receiving a length in bits for the random number, and wherein the length in bits for the random number is less than or equal to a number of bit entries in the first plurality of bit entries.

35. (Original) The method of claim 33, further comprising:
prior to the step for providing the bit values from each of the first plurality of bit entries, step for controlling the first plurality of bit entries; and step for reading the bit values from each, of the first plurality of bit entries.

36. (Previously Presented) A computer readable program storage device encoded with instructions that, when executed by a computer, performs a method of generating a random, number, the method comprising:

providing a first plurality of bit entries to an entropy register; and

transmitting a bit value from each of a plurality of performance registers to one of the first plurality of bit entries in the entropy register.

37. (Original) The computer readable program storage device of claim 36, the method further comprising:

providing the bit values from each of the first plurality of bit entries in the entropy register.

38. (Original) The computer readable program storage device of claim 36, the method further comprising:

receiving a request for a random number,

wherein providing the bit values from each of the first plurality of bit entries in the entropy register comprises providing the bit values from each of the first plurality of bit entries in

the entropy register in response to receiving the request for the random number.

39. (Original) The computer readable program storage device of claim 38, wherein receiving the request for the random number includes receiving a length in bits for the random number,
and wherein the length in bits for the random number is less than or equal to a number of bit entries in the first plurality of bit entries.

40. (Original) The computer readable program storage device of claim 38, further comprising;
prior to providing the bit values from each of the first plurality of bit entries in the entropy register,
providing a control signal to the entropy register; and
reading the bit values from each of the first plurality of bit entries in the entropy register.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B. Smithers whose telephone number is (571) 272-3876. The examiner can normally be reached on Monday-Friday (8:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew T. Caldwell can be reached on (571) 272-3868. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Matthew B Smithers
Primary Examiner
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